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# MUSEUM



# TALK

**SPRING 1949**

**VOLUME XXIV NUMBER I**

**SANTA BARBARA MUSEUM  
OF NATURAL HISTORY**  
SANTA BARBARA · CALIFORNIA

# MUSEUM TALK

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*Photo courtesy of Joseph Sefton Jr.*

The Orca and members of its scientific crew seining at Willows  
Anchorage on Santa Cruz Island

## Island Hopping

ONLY fifty years after Columbus discovered America, seventy-eight years before the Pilgrims landed, Juan Rodriquez Cabrillo sailed up the west coast of Mexico and California and discovered the Channel Islands.

In spite of their early discovery, most of us know little about these islands. In fact, how many could you name?



If you are like most people you will say Santa Cruz, Santa Rosa, Anacapa and perhaps San Miguel. You probably didn't know that Anacapa is really three islands, called by the old timers "The Anacapas."

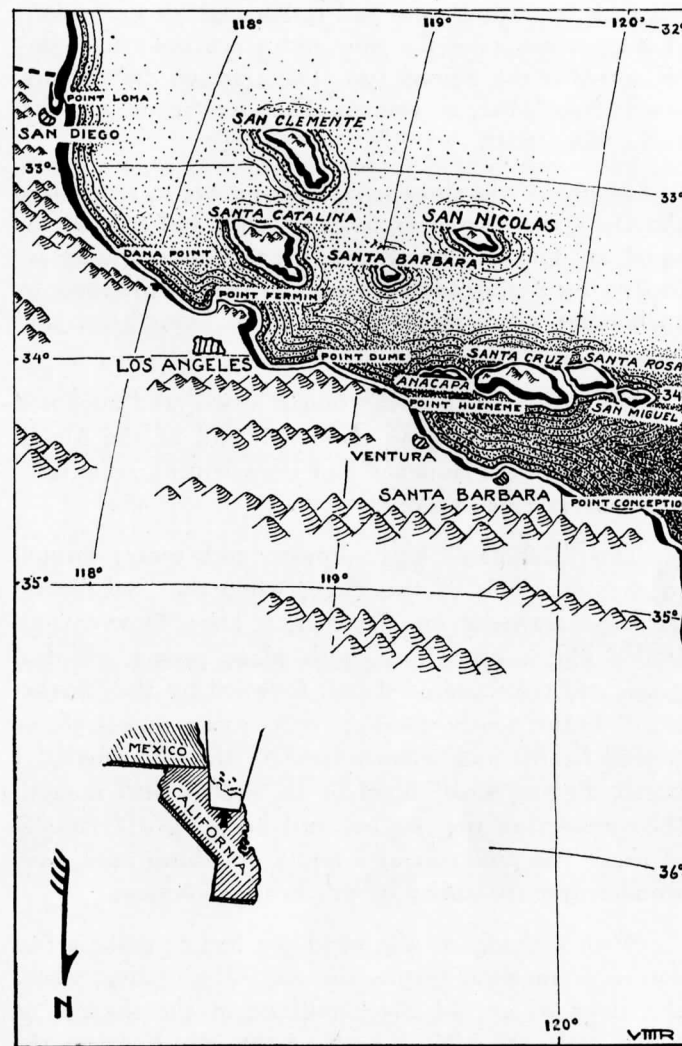
Did you remember Santa Barbara Island and San Nicolas, far out to sea, or Santa Catalina, which of course you knew, but perhaps didn't think of as one of the Channel Islands? Then there are San Clemente, a little to the south, and the six Mexican islands—Los Coronados and Todos Santos.

There are also several very tiny islands such as Gull and Prince, and many named rocks.

For some twenty-five years, expeditions from the Santa Barbara Museum of Natural History have been gathering data on the islands. The expense and difficulties of transportation had confined investigation to the northern group until 1945. Then, through the cooperation of the United States Navy, transportation was provided to San Nicolas and an aerial reconnaissance was made of the southern group, which we hoped to have a chance to explore some day.

That day came sooner than it was expected when last year Mr. Joseph Sefton, Jr., president of the J. W. Sefton, Jr. Foundation and the San Diego Natural History Society, invited me to join the scientific crew of the marine research ship "Orca."

The Orca is a one hundred foot Coast Guard ice-breaker converted into a floating marine laboratory. As a naval vessel she carried twenty-eight officers and men, but as a research ship, a crew of fourteen. Scientists become sailors, swabbing decks, launching boats, repair-



Looking southward to the Channel Islands of Southern California

ing gear, operating radio and fathometer. A professional skipper navigates the ship and a professional engineer sees that the motors run. There are no deck chairs, shuffle board, bar, or women. The Orca is not a yacht, but a work boat.

On one of the three trips I have made so far aboard the Orca, we started from San Diego and headed for Caralina. There the high and precipitous sea cliffs are broken by short canyons that end in small harbors or anchorages where pleasure craft from Long Beach and Newport come for holidays.

We passed Avalon, the tourist town, and anchored at Johnsons Landing on the north end of the island. Small boats were launched and the scientific crew scattered on various missions.

The "Fishman" with dipnets and spears hunted in the tide pools of the shore, while the "Saladman" gathered seaweeds on the rocks. The "Flowerman," loaded like a pack mule with plant presses, climbed grass- and tree-covered slopes, followed by the "Snake-man" industriously turning over rocks in search of snakes, lizards and salamanders. As the "Boneman," I then measuring the mound, and breaking off samples of rock. The caretaker of a Boy Scout camp must have wondered at the sanity of this strange invasion.

With a change in the wind, we had to make a run for safer anchorage—this time at White Cove, where the ruins of an old silver mill lie in the shadow of Black Jack, the highest peak of the island. Again the crew scattered, literally from the top of Black Jack to

the bottom of the sea, for the Fishman and the "Tunicateman" donned flippers and goggles and dived into the chilly water for marine specimens.

Eight-hour days were unknown aboard the Orca. When night came, the laboratory was ablaze—scientists putting plants in presses, cleaning bones, or filling jars with specimens. Others dropped powerful lights over the side and scooped up squid, crabs, and small fishes, attracted to the light like moths to a flame. Still others, with flashlight and waterglass, floated in skiffs along the shore, peering into the crystal clear depths where lobsters with phosphorescent eyes stared up from the fairland of underwater gardens and brilliant red fish darted out from swaying kelp.

Some people hunt lost mines, but the Boneman was hunting the lost steatite quarries of the ancient Indians who inhabited the island and traded their steatite ware in the form of ollas, beads and sculpture to the Indians of the mainland and other islands. About fifty years ago these quarries were reported as being in "Potts Valley," but no one today seems to know where this was.

Going by the geology and a large measure of hunch, the Boneman and Flowerman landed at an ancient Indian village. Huge toyon trees grew over the village site, so huge and so loaded with berries that the Flowerman stared in wonder, then excitedly unpacked cameras and presses.

The Boneman watched with a superior, amused calm until his glance fell to a circular object a few feet in front of him. With a shout, he started madly digging up one of the pieces of partially worked olla in the shade of the toyon. Having snapped his pictures

The Boneman, too, was happy again for, while no signs of ancient man were found on Los Coronados, here at Todos Santos modern Mexican fishermen have built a shack on the site of an ancient Indian village. The food is similar, and were it not for the occasional tin can and the ever-present tequilla bottle, it would be difficult to tell where ancient and modern began and left off.

The Channel Islands are one of our last frontiers of science on the North American coast. Nineteen islands we have surveyed, each with its peculiar differences of fauna, flora, and ancient life. This is but a beginning, for there is much to be learned on each island as well as the other islands still farther south along the coast of Lower California—Cedros, Natividad, San Martin and Guadalupe.

The Orca will sail again and I hope to be aboard.

—P. C. Orr

### WILDFLOWER GAMES

Wildflower games will augment the wildflower exhibits in the Flower Hall this spring.

While the games are on, twenty of the wild plants exhibited will have numbers instead of the usual name-labels.

The game consists of matching these numbers with the names listed on a mimeographed sheet. One can try both common and scientific names and can score his success by checking his efforts against the answer sheet posted on the door. Then he can go back and learn the names and plants he missed.

Some people like to repeat the test a few days later to see how their score improves.

## BOTANICAL RELICTS

### NEAR SANTA BARBARA

**D**URING the Pleistocene epoch, when ice sheets covered northern portions of North America and glaciation was widespread, the climate of the Santa Barbara region was much cooler and more humid than it is today. Fragments of vegetation preserved in the Carpinteria tar pits indicate that the flora here once included Monterey pine (*Pinus radiata*) and was very similar to the present association of plants on the Monterey peninsula, 200 miles to the northwest. Although the nearest living Douglas firs (*Pseudotsuga taxifolia*) are in Monterey County, about twenty logs and many cones have been found among other fossil plants in Pleistocene deposits of Willow Creek on the west end of Santa Cruz Island.

Gradually, over thousands of years, as the ice sheets melted and the rainfall diminished, the climate of southern California became milder. With this, the cold-, moisture-loving flora began to vanish as the climatic conditions favorable to it receded northward.

Today, however, outlying colonies or islands of these plants persist in canyons and conspicuously on the north sides of ridges of the inland slopes of the Santa Ynez Mountains between Gaviota and Point Arguello. These mountains are all below 2200 feet in elevation. Much of this area not only has a high rainfall in comparison with other nearby stations but the moisture is augmented by heavy coastal fogs that drift in from the northwest. Here are dense oak woodlands, lush, verdant grasslands and cool, deep fog-drenched canyons overgrown with vegetation.



One quickly senses the northern atmosphere of this region which, according to present data, is the southernmost range of several important northern species that probably at one time were common in the Santa Barbara region and extended farther south. These include slim solomon, wake robin, pink flowering currant, oso berry, blue blossom and salal. (See map).

Two members of the Lily family are in thickets along creeks. Slim solomon (*Smilicina sessilifolia*) inhabits shaded woods and moist brushy slopes north to Washington, and wake robin (*Trillium sessile angustipetalum*), in its other varieties, has a similar distribution.

Pink flowering currant (*Ribes sanguineum glutinosum*), a plant of the Saxifrage family which extends to northern California, is scattered on moist canyon slopes. When crushed, its sticky foliage emits an odor similar to that of black walnut leaves. Because of the numerous clusters of pink flowers and its ease of propagation, it has become one of the most widely cultivated native shrubs.

Oso berry (*Osmaronia cerasiformis*), a shrub of the Rose family, grows in thickets along creeks. It ranges as far north as British Columbia and has never been reported south of Gaviota Pass.

Blue blossom (*Ceanothus thyrsiflorus*), a shrub of the Buckthorn family to which numerous chaparral plants belong, is common on many cool canyon slopes. Fossil seeds of this species have been found in Pleistocene deposits on Santa Cruz Island and in the Carpinteria tar pits. This shrub is particularly common in the redwood belt with its northern limits in Oregon.



Salal (*Gaultheria shallon*), a shrub of the Heath family, has tiny bell-shaped flowers and large glossy leaves, and is commonly used in floral decorations. A striking colony of this plant grows in wet soil in association with California huckleberry and giant sword ferns in the grove of huge moss-covered tanbark oaks on the summit of Mount Tranquillon near Point Arguello. This assemblage of plants reminds one of Mendocino County, yet, only a few feet from this grove, bush poppy (*Dendromecon rigida*) is growing in a mountain side of dry chaparral. The wet soil is apparently due to the condensation of fog on the tanbark oak leaves. Stunted specimens of salal are seen in the chaparral of California huckleberry and tanbark oaks on the ridges of the Santa Ynez Mountains northeast of Point Conception. It is common in the redwood belt and extends northward to British Columbia.

California huckleberry (*Vaccinium ovatum*) is an especially interesting relict plant. Acres and acres of this sometimes lichen-covered shrub of the Heath family can be seen on the north slopes of ridges in association with tanbark oaks or even scattered in typical chaparral in southern boulder-strewn exposures, where it is characteristically stunted and twisted. East of Gaviota its distribution is on summits and in seaward canyons of the Santa Ynez Mountains to Mission Canyon back of Santa Barbara (see map). Its southernmost place of collection is the canyons on the northerly sides of Santa Cruz and Santa Rosa Islands. It evidently existed there when these islands were still connected with the mainland near Point Mugu during the Pleistocene. This heath is frequently the dominant shrub under the red-

wood and Douglas fir forests northward to British Columbia and to see it in association with dry, southern California chaparral is almost like seeing polar bears in California.

Often associated with California huckleberry on the mainland are wax myrtle, tanbark oak and wood strawberry. These, however, extended farther south than does the huckleberry.

Pacific wax myrtle (*Myrica californica*) is characteristic of cool, moist situations. It grows in the Santa Monica Mountains of which the Channel Islands are an extension. Fossil seeds of this shrub, too, have been found in Pleistocene deposits on Santa Cruz Island and in the Carpinteria tar pits. Living specimens are on the north sides of ridges and in cool canyons of the Santa Ynez Mountains south of Lompoc. It extends northward to Washington.

Also in this area is tanbark oak (*Lithocarpus densiflora*), a tree that is abundant in the redwood belt. It is common along the north exposures of ridges as a tree to over fifty feet in height in favorable habitats or as a compact shrub of the chaparral in dry, exposed places. The largest trees in this region are on the north side of the summit of Mount Tranquillon. With a range as far north as Oregon, it occurs in the Santa Ynez Mountains in scattered colonies to Ventura County. The bark is used in tanning leather, hence the common name.

A remnant that practically everyone would recognize is the wood strawberry (*Fragaria californica*), which commonly grows in cool, moist places. It looks much like the cultivated plants and the fruits, however small, are tasty. This member of the Rose family

ranges from the high mountains of southern California to northern parts of the state and is quite unusual in our area because of its occurrence at low elevations, mainly below 1500 feet.

Recent botanical trips to the mountains northeast of Point Conception and to Mount Tranquillon were kindly arranged for the writer by Mr. Joseph Hollister, Mr. E. Denys Rowe and Mr. M. Van Rensselaer.

Further critical study may well extend the known ranges of these plants and even bring to light other species to add to the list of living remnants of a bygone flora. These, like fossils, suggest past and vanished conditions.

—Clifton Smith

*(Base map by Virginia More Roediger)*

### ANNUAL MEETING

At the annual meeting of the Trustees, held on February 15, 1949, the following officers were re-elected: Fred H. Schauer, President; Max C. Fleischmann, Executive Vice-President; Harold S. Chase, Vice-President; Mrs. M. Russell Perkins, Vice-President; Charles W. Hague, Secretary-Treasurer.

Miss Katherine Harvey, Mr. Harvey Holt, and Mr. Homer C. Thompson, whose terms expired in 1949, were re-elected to the class of 1954.

Appointed to the Executive Committee were Max C. Fleischmann, Harold S. Chase, Mrs. M. Russell Perkins, Kenneth Watters Jr., Irving Wills, and Fred H. Schauer and Charles W. Hague, ex-officio; to the Finance Committee, Charles W. Hague, Chairman, William Body and William H. Yule.